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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/020,355	10/29/2001	Shinobu Togasaki	10002673-1	2701

7590 03/09/2006

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EXAMINER	
ANYA, CHARLES E	

ART UNIT	PAPER NUMBER
2194	

DATE MAILED: 03/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/020,355	TOGASAKI, SHINOBU	
	Examiner	Art Unit	
	Charles E. Anya	2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3/ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12/19/05*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-33 are pending in this application.

Claim Objections

Claims 2-9 and 23-31 appears to include typographical errors. The word "A" on line 1 of claims 2-9 and 23-31 appears to have been used in error.

For the purpose of this office action the Examiner would change "A" to "The".

Claims 11-20,22 and 32 appears to include typographical errors. The word "An" on line 1 of claims 11-20,22 and 32 appears to have been used in error.

For the purpose of this office action the Examiner would change "An" to "The".

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-6,8,10-13,15,16,18 and 20-26 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Pat. No. 6,128,657 to OKanoya et al.

4. As to claim 1, Okanyoya teaches a method for routing a transaction to a front-end server (figures 1-5/15-17), comprising: identifying at least one attribute-based category for said transaction (S52 "...search key..." Col. 11 Ln. 8 - 21), identifying at least one of a plurality of front-end servers to process said transaction based at least in part on said identified attribute- based category of said transaction (S54 "...selects some candidate servers..." Col. 11 Ln. 19 – 21) and at least in part on said front-end servers being assigned to execute transactions corresponding to said attribute-based category (Col. 11 Ln. 59 – 67) and routing said transaction to one of said at least one identified front- end servers (S57 Col. 11 Ln. 36 – 39).

5. As to claim 2, Okanoya teaches a method as in claim 1, further comprising assigning said at least one attribute-based category to said transaction (S52 "...search key..." Col. 11 Ln. 8 - 21).

6. As to 3, Okanoya teaches a method as in claim 2, wherein assigning said at least one attribute-based category to said transaction comprises associating a tag with said transaction ("...character string..." Col. 12 Ln. 1 – 5, Ln. 35 – 42).

7. As to claim 4, Okanoya a method as in claim 1, wherein identifying said at least one front-end server comprises comparing said attribute-based category for said transaction to assigned attribute-based categories for said plurality of front-end servers (Key 75a Col. 11 Ln. 59 – 67, "...comparing..." Col. 16 Ln. 61 – 67).

8. As to claim 5, Okanoya teaches a method as in claim 1, further comprising determining whether said at least one front-end server is available for processing said transaction (S54-S56 Col. 11 Ln. 22 – 39).

9. As to claim 6, OKanoya teaches a method as in claim 1, further comprising rerouting said transaction to another of said plurality of front-end servers when said identified server refuses said transaction (S55 Col. 11 Ln. 26 – 33).

10. As to claim 8, Okanoya teaches a method as in claim 7, further comprising notifying a workload manager of said at least one front-end server assigned to said new attribute-based category ("...back..." Col. 11 Ln. 59 – 67).

11. As to claims 10 and 11, see the rejection of claims 1 and 2 respectively.

12. As to claim 12, Okanoya teaches an apparatus as in claim 10, wherein said attribute-based category is based on at least one "real" attribute of said transaction (Col. 11 Ln. 59 – 67).

13. As to claim 13, OKanoya teaches an apparatus as in claim 10, wherein said attribute-based category is based on at least one "perceived" attribute of said transaction ("...name..." Col. 12 Ln. 1 – 5).

14. As to claim 15, see the rejection of claims 5 and 6 above.

15. As to claim 16, Okanoya teaches an apparatus as in claim 10, further comprising program code for assigning a number of attribute-based categories to each of said plurality of front-end servers, wherein said program code for routing said transaction to one of said identified front-end servers routes said transaction according to said assigned attribute-based categories (Col. 11 Ln. 59 - 67).

16. As to claim 18, Okanoya teaches an apparatus as in claim 16, further comprising a workload manager table for recording said assigned attribute-based categories (State Manager 111 Col. 11 Ln. 59 – 67).

17. As to claim 20, see the rejection of claim 7 above.

18. As to claim 21, see the rejection of claim 1 above.

19. As to claim 22, Okanoya teaches the apparatus as in claim 21, further comprising: means for identifying each of said plurality of servers (S53 Col. 11 Ln. 19 – 21); and means for assigning at least one attribute-based category to each of said plurality of servers (Col. 11 Ln. 59 – 67).

20. As to claim 23, Okanoya teaches a method as in claim 1, wherein identifying said at least one attribute-based category for said transaction comprises identifying a "perceived" attribute of said transaction ("...name..." Col. 12 Ln. 1 – 5).

21. As to claim 24, Okanoya teaches a method as in claim 23, wherein the identified "perceived" attribute is the computer originating the transaction ("...name..." Col. 12 Ln. 1 – 5).

22. As to claim 25, Okanoya teaches a method as in claim 23, wherein the identified "perceived" attribute is the user originating the transaction ("...name..." Col. 12 Ln. 1 – 5).

23. As to claim 26, Okanoya teaches a method as in claim 23, wherein the identified "perceived" attribute is a class of users from which the transaction originates ("...name..." Col. 12 Ln. 1 – 5).

24. Claims 7,14,17 and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 6,128,657 to Okanoya et al. in view of U.S. Pat. No. 5,864,679 to Kanai et al.

25. As to claim 7, Okanoya is silent with reference to a method as in claim 1, further comprising determining when said identified attribute-based category is new and assigning said new attribute-based category to at least one of said plurality of front-end servers.

26. Kanai teaches a method as in claim 1, further comprising determining when said identified attribute-based category is new and assigning said new attribute-based category to at least one of said plurality of front-end servers (Col. 14 Ln. 56 – 67, Col. 15 Ln. 1 - 25).

27. It would be obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Kanai and Okanoya because the teaching of Kanai would improve the system of Okanoya by providing a transaction routing unit operated by deterministic algorithm which selects optimum transaction processor (Kanai Col. 15 65 – 67).

28. As to claim 14, Kanai teaches an apparatus as in claim 10, further comprising a user table for assigning said at least one attribute-based category to said transaction (Col. 15 Ln. 45 - 62).

29. As to claim 17, Kanai teaches an apparatus as in claim 16, wherein said program code for assigning at least one attribute-based category to each of said plurality of servers bases the assignment at least in part on an affinity of transaction attributes (figure 23 Col. 18 Ln. 51 - 67, Col. 19 Ln. 12 - 37).

30. As to claim 27, Kanai teaches a method as in claim 1, wherein said identifying and routing actions are performed by a workload manager, the method further comprising: determining, at an identified front-end server, whether the attribute-based category associated with said received transaction is assigned to the identified front-end server (figure 19A Col. 17 Ln. 37 – 50), and if it is not, establishing an association between i) the attribute-based category of the received transaction and ii) the identified front-end server (figure 23 Col. 18 Ln. 51 – 67).

31. As to claim 28, Kanai teaches a method as in claim 27, further comprising: if the identified front-end server establishes an association between itself and an attribute-based category, broadcasting this association to a plurality of workload managers that can route transactions to the identified front-end server ("...registered..." Col. 25 Ln. 39 – 49).

32. As to claim 29, Kanai teaches a method as in claim 28, further comprising: upon a workload manager's receipt of said broadcast association, the workload manager updating its own table of assignments between attribute-based categories and front-end servers (Col. 25 Ln. 39 – 46).

33. Claims 9 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 6,128,657 to Okanoya et al. in view of U.S. Pat. No. 6,681,244 B1 to Cross et al.

34. As to claim 9, Okanoya is silent with reference to a method as in claim 1, further comprising: determining a status of an attribute-based category; and deallocating said attribute-based category from said front-end server to which it is assigned when said status is inactive.

35. Cross teaches a method as in claim 1, further comprising: determining a status of an attribute-based category; and deallocating said attribute-based category from said front-end server to which it is assigned when said status is inactive (Col. 6 Ln. 15 - 27).

36. It would be obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Cross and Okanoya because the teaching of Cross would improve the system of Okanoya by regulating client routing (Cross Col. 6 Ln. 15 - 27).

37. As to claim 19, see the rejection of claim 9 above.

38. Claims 30-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 6,128,657 to Okanoya et al. in view of U.S. Pub. No. 2002/0161917 A1 to Shapiro et al.

39. As to claim 30, Okanoya teaches a method as in claim 1, further comprising: one or more of said front-end servers, maintaining its own table of attribute-based categories for transactions that it has processed; for each

attribute-based category in its table, maintaining an indication of when a transaction corresponding to the attribute-based category was last processed by the front-end server (State Manager 111 Col. 11 Ln. 59 – 67).

40. Okanoya is silent with reference to after a predetermined time of not processing a transaction corresponding to an attribute-based category in its table, broadcasting an indication of this event to a plurality of workload managers that can route transactions to the front-end server.

41. Shapiro teaches after a predetermined time of not processing a transaction corresponding to an attribute-based category in its table, broadcasting an indication of this event to a plurality of workload managers that can route transactions to the front-end server ("...poor goodness..." page 6 paragraphs 0070/0071).

42. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Shapiro and Okanoya because the teaching of Shapiro would improve the system of Okanoya by dynamically routing data within a network such that a node determines an efficient method of transmitting the data based on the routing information, and transmitting the data to a neighbor node based on the determination of the efficient method (Shapiro page 1 paragraph 0009).

43. As to claim 31, see the rejection of claim 29 above.

44. As to claim 32, Shapiro teaches an apparatus as in claim 10, further comprising program code to update, in response to broadcast indications from said front-end servers, a table of which attribute-based categories are assigned to which front-end servers, said table being maintained by and for a particular workload manager (page 6 paragraphs 0070/0071).

45. As to claim 33, Okanoya teaches a method for routing a transaction to a front-end server, comprising: maintaining a table at a workload manager, the table comprising indications of which attribute-based categories of transactions are assigned to which of a plurality of front-end servers (State Manager 111 Col. 11 Ln. 59 – 67); upon receiving said transaction at the workload manager, identifying at least one attribute-based category for the transaction/identifying at least one of the plurality of front-end servers to process the transaction based at least in part on said identified attribute-based category of said transaction and at least in part on whether said table comprises an indication that said identified attribute-based category is assigned to one of said front-end servers (S53-S56 Col. 11 Ln. 19 – 39); and routing said transaction to one of said at least one identified front-end severs (S57 Col. 11 Ln. 34 – 39).

46. Okanoya is silent with reference to periodically updating the table in response to broadcasts received from said front-end servers.

47. Shapiro teaches periodically updating the table in response to broadcasts received from said front-end servers (page 6 paragraphs 0070/0071).

48. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Shapiro and Okanoya because the teaching of Shapiro would improve the system of Okanoya by dynamically routing data within a network such that a node determines an efficient method of transmitting the data based on the routing information, and transmitting the data to a neighbor node based on the determination of the efficient method (Shapiro page 1 paragraph 0009).

Response to Arguments

49. Applicant's arguments with respect to claims 1-33 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles E. Anya whose telephone number is (571) 272-3757. The examiner can normally be reached on M-F (8:30-6:00) First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, An Meng-Ai can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Charles E Anya
Examiner
Art Unit 2194

cea.

WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER